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REMARKS

Applicant responds to the Office Action mailed on May 4, 2007. No new matter is added. Claims 1-10 are pending.

PCT International Preliminary Report on Patentability:

Applicant has recently received an English translation of the PCT International Preliminary Report on Patentability. For the Examiner's convenience, Applicant has submitted herewith a copy of the report.

102(b) Rejections:

Claims 1-3, 6, 8 and 10 are rejected as being anticipated by Lazar (US Patent No. 2,747,381). This rejection is traversed.

Claim 1 is directed to a cooling device that requires, among other features, a cooler provided on at least one side-wall of a chamber formed with a thermal insulating box, a cooling chamber, and a fan wherein the cooler and the cooling chamber are partitioned by a partition so as to allow cold air to be accumulated in the cooler. Claim 1 also requires that cold air is accumulated in a space inside the partition and hot air in the cooling chamber are exchanged by the fan through an aperture.

Lazar does not disclose or suggest these features. Lazar is directed to a forced convection elevator and water chiller that includes a cooler sub-unit (28), a refrigerator (8), a casing (2) and fan (58). The rejection asserts that this feature is found in Figure 4. However, as shown in Figure 5, which is a bottom plan view of the same unit shown in Figures 1-4, and also in the specification on page 2, lines 3-4, the lower end of the casing (2) has a large opening exposing the cooling unit (28) to the outside of the casing (2). When the fan (58) is started, cold air in the refrigerator (8) is sucked into the open portion at the lower end of the casing (2) (see column 2, lines 35-48). Thus, nowhere does Lazar disclose or suggest that the cooling unit (28) is provided on at least one side-wall of a chamber formed with a thermal insulating box, as required by claim 1.

Lazar also does not disclose or suggest that cold air is accumulated in a space inside the partition and hot air in the cooling chamber are exchanged by the fan through an aperture. As stated above, when the fan (58) is started, cold air in the refrigerator (8)

is sucked into the open portion at the lower end of the casing (2). The air flows in only one direction, from the refrigerator (8), through the cooling unit (28), then through an opening (66) into the portion of the casing (2) that includes the fan (58). As the air is only allowed to flow in one direction, nowhere does Lazar disclose or suggest that air travels from the portion of casing (2) that includes the fan (58), then through the opening (66) and then into portion of the casing (2) that includes the cooling unit (28). Thus, nowhere does Lazar disclose or suggest that cold air accumulated in a space inside the partition and hot air in the cooling chamber are exchanged by the fan through the aperture, as required by claim 1. For at least these reasons claim 1 is not anticipated by or upatentable over Lazar. Claims 2-3, 6, 8 and 10 depend from claim 1 and should be allowed for at least the same reasons.

§103(a) Rejections:

Claims 4, 5 and 9 are rejected as being unpatentable over Lazar in view of Scofield (US Patent No. 2,957,067). This rejection is traversed. Claims 4, 5 and 9 depend from claim 1 and should be allowable for at least the same reasons described above. Applicant does not concede the correctness of this rejection.

The Scofield Reference:

In order to further the prosecution of this matter, the following is noted with respect to the Scofield reference as it applies to claim 1.

The present Office Action combines features of the oven of Scofield with the forced convection evaporator and water chiller of Lazar. As a first note, Scofield is directed to a heater and does not suggest the use of a cooler. However, assuming that Scofield is translatable to a cooling device, the combination of Lazar and Scofield do not teach or suggest the features of claim 1. The oven of Scofield includes heating coils (24 and 25), a fan (26), a baffle element (27) and walls (13, 14, 15 and 16). When the fan (26) is started, air passes through heating coils (24 and 25) and into a baking compartment (10). However, once air has entered the baking compartment (10), no air is allowed back to the heater coils (24 and 25). Even if heating coil (24 and 25) are assumed to be a cooler, nowhere does Scofield teach or suggest that cold air accumulated

in a space inside the partition and hot air in the baking compartment (10) are exchanged by the fan (26) through an aperture (28), as required by the cooler, cooling chamber, fan, partition and aperture of claim 1.

Conclusion:

Applicant respectfully asserts that claims 1-10 are now in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.



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Respectfully submitted,

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Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference H2160-01	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2004/008914	International filing date (day/month/year) 18.06.2004	Priority date (day/month/year) 23.06.2003
International Patent Classification (IPC) or national classification and IPC		
Applicant AIR OPERATION TECHNOLOGIES INC.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

- a. ☒ (sent to the applicant and to the International Bureau) a total of 2 sheets, as follows:
- ☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
- b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))

_____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the report
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

Form PCT/IPEA/409 (cover sheet) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/008914

Box No. 1	Basis of the report
1.	<p>With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:</p> <p><input type="checkbox"/> international search (Rule 12.3 and 23.1(b))</p> <p><input type="checkbox"/> publication of the international application (Rule 12.4)</p> <p><input type="checkbox"/> international preliminary examination (Rule 55.2 and/or 55.3)</p> <p>2. With regard to the elements of the international application, this report is based on <i>(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)</i>:</p> <p><input type="checkbox"/> the international application as originally filed/furnished</p> <p><input checked="" type="checkbox"/> the description:</p> <p>pages <u>1-13</u> _____ as originally filed/furnished</p> <p>pages* _____ received by this Authority on _____</p> <p>pages* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the claims:</p> <p>nos. <u>2-10</u> _____ as originally filed/furnished</p> <p>nos.* <u>1</u> _____ as amended (together with any statement) under Article 19</p> <p>nos.* _____ received by this Authority on _____</p> <p>nos.* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the drawings:</p> <p>sheets <u>fig. 1-6B</u> _____ as originally filed/furnished</p> <p>sheets* _____ received by this Authority on _____</p> <p>sheets* _____ received by this Authority on _____</p> <p><input type="checkbox"/> a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.</p> <p>3. <input type="checkbox"/> The amendments have resulted in the cancellation of:</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (specify): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (specify): _____</p> <p>4. <input type="checkbox"/> This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(e)).</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (specify): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (specify): _____</p>

* If item 4 applies, some or all of those sheets may be marked "superseded."

Form PCT/IPC/A/409 (Box No. 1) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/008914

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims		YES
	Claims	1-10	NO
Inventive step (IS)	Claims		YES
	Claims	1-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)	<p>Document 1: JP 58-88579 A (Sanyo Electric Co., Ltd.), 26 May 1983, page 1, right column, line 8 to page 2, upper left column, line 1, and fig. 1 to 3</p> <p>Document 2: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 108385/1978 (Laid-open No. 26306/1980) (Hitachi, Ltd.), 20 February 1980, page 4, lines 14 to 20 and fig. 2</p> <p>The invention set forth in claims 1 to 6 and 9 is disclosed in document 1 (page 1, right column, line 8 to page 2, upper left column, line 1, and fig. 1 to 3) and document 2 (page 4, lines 14 to 20 and fig. 2) cited in the international search report; therefore, the invention in question lacks novelty and does not involve an inventive step. In claim 1, the specific configuration of the "open space" is unclear, and thus the invention set forth in claim 1 cannot be considered to be different from the inventions disclosed in documents 1 and 2.</p> <p>The invention set forth in claims 7 and 8 is disclosed in document 1 (page 1, right column, line 8 to page 2, upper left column, line 1, and fig. 1 to 3) cited</p>		

Form PCT/JP2004/400 (Box No. V) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/008914

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
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in the international search report; therefore, the invention in question lacks novelty and does not involve an inventive step.

The invention set forth in claim 10 is disclosed in document 2 (page 4, lines 14 to 20 and fig. 2) cited in the international search report; therefore, the invention in question lacks novelty and does not involve an inventive step.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/008914

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The scope of claim 1 includes any cooling device that exhibits a desired characteristic; i.e., the ability to "exchange the cool air that collects within the partition plate and the warm air within the cooling chamber via an opening by means of a fan."

However, the description of the present application does not set forth any specific configuration with regards to the fan for exchanging said cool air and said warm air; therefore, the invention set forth in claim 1 is not disclosed in the description in the meaning of PCT Article 5, and is not fully supported by the disclosures of the description in the meaning of PCT Article 6.

As a result, the preliminary examination was carried out in relation to the scope of the inventions that are supported by the disclosures of the description: i.e., inventions wherein a fan has been provided within the opening.

Form PCT/ISA/409 (Box VIII) (January 2004)